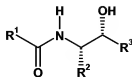


# Amendments to the Claims

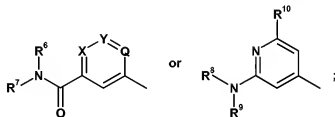
Claim 1 (original) A compound of Formula I:



I

where:

R<sup>1</sup> is (C<sub>3</sub>-C<sub>7</sub> cycloalkyl)<sub>0-1</sub>(C<sub>1</sub>-C<sub>6</sub> alkyl), (C<sub>3</sub>-C<sub>7</sub> cycloalkyl)<sub>0-1</sub>(C<sub>2</sub>-C<sub>6</sub> alkenyl), (C<sub>3</sub>-C<sub>7</sub> cycloalkyl)<sub>0-1</sub>(C<sub>2</sub>-C<sub>6</sub> alkynyl) or C<sub>3</sub>-C<sub>7</sub> cycloalkyl, each optionally substituted with up to three groups independently selected from halo, hydroxy, thiol, cyano, trifluoromethyl, trifluoromethoxy, C<sub>1</sub>-C<sub>7</sub> alkoxy, C<sub>3</sub>-C<sub>7</sub> cycloalkoxy, oxo, and NR<sup>4</sup>R<sup>5</sup>, biphenyl optionally

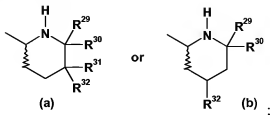


substituted with halo, hydrogen,

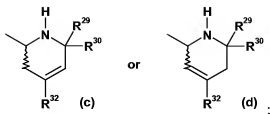
R<sup>2</sup> is C<sub>1</sub>-C<sub>3</sub> alkyl, benzyl optionally monosubstituted in the phenyl ring with a substituent selected from the group consisting of halo, C<sub>1</sub>-C<sub>6</sub> alkoxy optionally substituted in the alkyl chain with C<sub>3</sub>-C<sub>7</sub> cycloalkyl, and C<sub>1</sub>-C<sub>6</sub> alkylthio optionally substituted in the alkyl chain with C<sub>3</sub>-C<sub>7</sub> cycloalkyl, or benzyl optionally disubstituted in the phenyl ring with a first substituent independently selected from halo and a second substituent independently selected from halo, C<sub>1</sub>-C<sub>6</sub> alkoxy optionally substituted in the alkyl chain with C<sub>3</sub>-C<sub>7</sub> cycloalkyl, and C<sub>1</sub>-C<sub>6</sub> alkylthio optionally substituted in the alkyl chain with C<sub>3</sub>-C<sub>7</sub> cycloalkyl;

R<sup>3</sup> is:

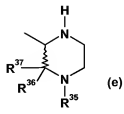
i) a piperidin-2-yl moiety of formula:



ii) a tetrahydropyridin-2-yl moiety of formula:



iii) a piperazin-2-yl moiety of formula:



- iv) homopiperidin-2-yl;
- v) 1,2,3,4-tetrahydroisoquinolin-3-yl optionally substituted with one or two substituents selected from halo, C<sub>1</sub>-C<sub>6</sub> alkyl, and C<sub>1</sub>-C<sub>6</sub> alkoxy;
- vi) 2-azabicyclo[2.2.2]oct-(5Z)ene-3-yl;
- vii) 2-azabicyclo[2.2.1]hept-3-yl optionally substituted with C<sub>1</sub>-C<sub>10</sub> alkyl optionally substituted with C<sub>1</sub>-C<sub>4</sub> alkoxy; or
- viii) 2-azabicyclo[2.2.2]oct-3-yl optionally substituted with oxo, or optionally substituted with one or two substituents independently selected from hydroxy, fluoro, and C<sub>1</sub>-C<sub>6</sub> alkyl;

X is CH, N, or N<sup>+</sup>-O<sup>-</sup>;

Y is CR<sup>11</sup>, N, or N<sup>+</sup>-O<sup>-</sup>;

Q is CR<sup>12</sup>, N, or N<sup>+</sup>-O<sup>-</sup>;

R<sup>4</sup> is hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted up to three times with fluoro, or phenyl;

R<sup>5</sup> is hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted up to three times with fluoro, phenyl, -

C(O)(C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted up to three times with fluoro), or

-SO<sub>2</sub>(C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted up to three times with fluoro);

R<sup>6</sup> and R<sup>7</sup> are independently selected from the group consisting of methyl, ethyl, and propyl;

R<sup>8</sup> is hydrogen or C<sub>1</sub>-C<sub>6</sub> alkyl;

R<sup>9</sup> is C<sub>3</sub>-C<sub>5</sub> cycloalkyl, sec-butyl, or -CH<sub>2</sub>R<sup>13</sup>;

R<sup>10</sup> is -CF<sub>2</sub>R<sup>14</sup>, -OR<sup>15</sup>, -CH<sub>2</sub>C(O)CH<sub>3</sub>, -S(O)<sub>1,2</sub>R<sup>16</sup>, -NR<sup>17</sup>SO<sub>2</sub>R<sup>18</sup>, (C<sub>1</sub>-C<sub>3</sub> alkoxy)-carbonyl, phenyl optionally substituted with halo, 1,3-dioxolan-2-yl, 1,3-dioxan-2-yl, 1,1-dioxo-2,3,4,5-tetrahydroisothiazol-2-yl, or tetrazol-5-yl optionally substituted with C<sub>1</sub>-C<sub>3</sub> alkyl;

R<sup>11</sup> is hydrogen, chloro, isobutyl, CH<sub>2</sub>R<sup>19</sup>; CF<sub>2</sub>R<sup>20</sup>, 1,1,1-trifluoro-2-hydroxyeth-2-yl, C<sub>2</sub>-C<sub>4</sub> alkenyl optionally substituted with one or two fluorine atoms, OR<sup>21</sup>, C(O)R<sup>22</sup>, N(methyl)(methylsulfonyl), N(methyl)(acetyl), pyrrolidin-2-on-1-yl, methylsulfonyl, N,N-dimethylaminosulfonyl, phenyl optionally substituted with one or two substituents selected from the group consisting of hydroxymethyl, methoxy, fluoro, and methylsulfonyl, 1,3-dioxolan-2-yl, 1,3-dithiolan-2-yl, 1,3-oxathiolan-2-yl, 1,3-dioxan-2-yl, 1,3-dithian-2-yl, pyridinyl, thiazolyl, oxazolyl, or 1,2,4-oxadiazolyl optionally substituted with methyl;

R<sup>12</sup> is hydrogen or fluoro;

R<sup>13</sup> is ethynyl or cyclopropyl;

R<sup>14</sup> is hydrogen or methyl;

R<sup>15</sup> is difluoromethyl or methanesulfonyl;

R<sup>16</sup> is C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>3</sub>-C<sub>6</sub> cycloalkyl, phenyl, or -NR<sup>25</sup>R<sup>26</sup>;

R<sup>17</sup> is hydrogen, C<sub>1</sub>-C<sub>3</sub> alkyl optionally substituted with up to 3 fluorine atoms, or C<sub>3</sub>-C<sub>6</sub> cycloalkyl;

R<sup>18</sup> is C<sub>1</sub>-C<sub>3</sub> alkyl or C<sub>3</sub>-C<sub>6</sub> cycloalkyl;

R<sup>19</sup> is fluoro, hydroxy, or C<sub>1</sub>-C<sub>3</sub> alkoxy;

R<sup>20</sup> is hydrogen, phenyl, or furyl;

R<sup>21</sup> is C<sub>1</sub>-C<sub>3</sub> alkyl optionally substituted with one or two fluorine atoms;

R<sup>22</sup> is C<sub>1</sub>-C<sub>3</sub> alkyl, C<sub>3</sub>-C<sub>5</sub> cycloalkyl, C<sub>2</sub>-C<sub>3</sub> alkenyl, C<sub>1</sub>-C<sub>3</sub> alkoxy, NR<sup>23</sup>R<sup>24</sup>, pyrrolidin-1-yl optionally substituted with methyl or one or two fluorine atoms, piperidin-1-yl, phenyl, pyridinyl, or furyl;

R<sup>23</sup> is hydrogen or methyl;

R<sup>24</sup> is methyl, ethyl, or propyl;

R<sup>25</sup> is hydrogen or methyl;

R<sup>26</sup> is methyl; or

R<sup>25</sup> and R<sup>26</sup> taken together with the nitrogen atom to which they are attached form a pyrrolidine or piperidine ring;

R<sup>29</sup> is hydrogen or C<sub>1</sub>-C<sub>6</sub> alkyl;

R<sup>30</sup> is hydrogen or C<sub>1</sub>-C<sub>6</sub> alkyl;

R<sup>29</sup> and R<sup>30</sup> taken together with the carbon to which they are attached form a C<sub>3</sub>-C<sub>6</sub> cycloalkyl ring;

R<sup>31</sup> is hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>3</sub>-C<sub>6</sub> cycloalkyl, or phenyl optionally monosubstituted with C<sub>1</sub>-C<sub>6</sub> alkyl;

$R^{32}$  is hydrogen,  $R^{33}$ , or  $-(CH_2)_{0-2}-OR^{33}$ ;

$R^{33}$  is  $C_1-C_{10}$  alkyl optionally substituted with 1-6 fluorine atoms,  $C_2-C_6$  alkenyl,  $C_2-C_6$  alkynyl, or  $-(CH_2)_{0-3}-R^{34}$ ;

$R^{34}$  is  $C_3-C_7$  cycloalkyl or phenyl each optionally substituted with one or two substituents independently selected from the group consisting of halo,  $C_1-C_6$  alkyl,  $C_1-C_6$  alkoxy, hydroxy, trifluoromethyl, and trifluoromethoxy, thienyl optionally substituted with halo, benzothenyl optionally substituted with halo, thiazolyl optionally substituted with  $C_1-C_4$  alkyl, or adamantyl;

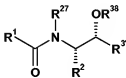
$R^{35}$  is  $-(CH_2)_{0-6}-R^{34}$ ,  $-C(O)-(CH_2)_{0-6}-R^{34}$ ,  $-C(O)-(C_1-C_{10} \text{ alkyl})$ ,  $-C(O)-(C_1-C_4 \text{ alkoxy optionally substituted with phenyl})$ ,  $C_1-C_{10}$  alkyl optionally substituted with 1-6 fluorine atoms,  $C_2-C_{10}$  alkenyl, or  $C_2-C_{10}$  alkynyl;

$R^{36}$  and  $R^{37}$  are both hydrogen or, taken together with the carbon atom to which they are attached form a carbonyl group; or a pharmaceutically acceptable salt thereof; provided that: a) no more than one of X, Y, and Q may be N or  $N^+-O^-$ ; and b) when X is CH, Y is  $CR^{11}$ , and Q is  $CR^{12}$ , then one of  $R^{11}$  and  $R^{12}$  is other than hydrogen.

Claims 2-5 (canceled)

Claim 6 (original): A pharmaceutical formulation comprising a compound of Claim 1, in combination with a pharmaceutically acceptable carrier, diluent, or excipient.

Claim 7 (original): A compound of Formula III:

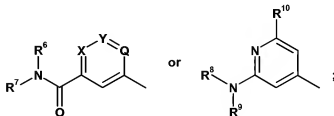


III

where:

$R^1$  is  $(C_3-C_7 \text{ cycloalkyl})_{0-1}(C_1-C_6 \text{ alkyl})$ ,  $(C_3-C_7 \text{ cycloalkyl})_{0-1}(C_2-C_6 \text{ alkenyl})$ ,  $(C_3-C_7 \text{ cycloalkyl})_{0-1}(C_2-C_6 \text{ alkynyl})$  or  $C_3-C_7$  cycloalkyl, each optionally substituted with up to three groups independently selected from halo, hydroxy, thiol, cyano, trifluoromethyl,

trifluoromethoxy, C<sub>1</sub>-C<sub>7</sub> alkoxy, C<sub>3</sub>-C<sub>7</sub> cycloalkoxy, oxo, and NR<sup>4</sup>R<sup>5</sup>, biphenyl optionally

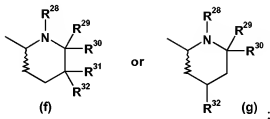


substituted with halo, hydrogen,

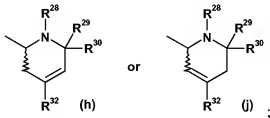
R<sup>2</sup> is C<sub>1</sub>-C<sub>3</sub> alkyl, benzyl optionally monosubstituted in the phenyl ring with a substituent selected from the group consisting of halo, C<sub>1</sub>-C<sub>6</sub> alkoxy optionally substituted in the alkyl chain with C<sub>3</sub>-C<sub>7</sub> cycloalkyl, and C<sub>1</sub>-C<sub>6</sub> alkylthio optionally substituted in the alkyl chain with C<sub>3</sub>-C<sub>7</sub> cycloalkyl, or benzyl optionally disubstituted in the phenyl ring with a first substituent independently selected from halo and a second substituent independently selected from halo, C<sub>1</sub>-C<sub>6</sub> alkoxy optionally substituted in the alkyl chain with C<sub>3</sub>-C<sub>7</sub> cycloalkyl, and C<sub>1</sub>-C<sub>6</sub> alkylthio optionally substituted in the alkyl chain with C<sub>3</sub>-C<sub>7</sub> cycloalkyl;

R<sup>3'</sup> is:

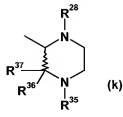
ix) a piperidin-2-yl moiety of formula:



x) a tetrahydropyridin-2-yl moiety of formula:



xi) a piperazin-2-yl moiety of formula:



xii) homopiperidin-2-yl substituted in the 1-position with variable R<sup>28</sup>;

- xiii) 1,2,3,4-tetrahydroisoquinolin-3-yl substituted in the 1-position with variable  $R^{28}$  and optionally further substituted with one or two substituents selected from halo,  $C_1$ - $C_6$  alkyl, and  $C_1$ - $C_6$  alkoxy;
- xiv) 2-azabicyclo[2.2.2]oct-(5Z)ene-3-yl substituted in the 2-position with variable  $R^{28}$ ;
- xv) 2-azabicyclo[2.2.1]hept-3-yl substituted in the 2-position with variable  $R^{28}$  and optionally further substituted with  $C_1$ - $C_{10}$  alkyl optionally substituted with  $C_1$ - $C_4$  alkoxy; or
- xvi) 2-azabicyclo[2.2.2]oct-3-yl substituted in the 2-position with variable  $R^{28}$  and optionally further substituted with oxo, or optionally further substituted with one or two substituents independently selected from hydroxy, fluoro, and  $C_1$ - $C_6$  alkyl;

X is CH, N, or  $N^+-O^-$ ;

Y is  $CR^{11}$ , N, or  $N^+-O^-$ ;

Q is  $CR^{12}$ , N, or  $N^+-O^-$ ;

$R^4$  is hydrogen,  $C_1$ - $C_6$  alkyl optionally substituted up to three times with fluoro, or phenyl;

$R^5$  is hydrogen,  $C_1$ - $C_6$  alkyl optionally substituted up to three times with fluoro, phenyl, -

$C(O)(C_1$ - $C_6$  alkyl optionally substituted up to three times with fluoro), or

$-SO_2(C_1$ - $C_6$  alkyl optionally substituted up to three times with fluoro);

$R^6$  and  $R^7$  are independently selected from the group consisting of methyl, ethyl, and propyl;

$R^8$  is hydrogen or  $C_1$ - $C_6$  alkyl;

$R^9$  is  $C_3$ - $C_5$  cycloalkyl, sec-butyl, or  $-CH_2R^{13}$ ;

$R^{10}$  is  $-CF_2R^{14}$ ,  $-OR^{15}$ ,  $-CH_2C(O)CH_3$ ,  $-S(O)_{1,2}R^{16}$ ,  $-NR^{17}SO_2R^{18}$ , ( $C_1$ - $C_3$  alkoxy)-carbonyl, 1,3-dioxolan-2-yl, 1,3-dioxan-2-yl, 1,1-dioxo-2,3,4,5-tetrahydroisothiazol-2-yl, or tetrazol-5-yl optionally substituted with  $C_1$ - $C_3$  alkyl;

$R^{11}$  is hydrogen, chloro, isobutyl,  $CH_2R^{19}$ ,  $CF_2R^{20}$ , 1,1,1-trifluoro-2-hydroxyethyl-2-yl,  $C_2$ - $C_4$  alkenyl optionally substituted with one or two fluorine atoms,  $OR^{21}$ ,  $C(O)R^{22}$ ,

N(methyl)(methylsulfonyl), N(methyl)(acetyl), pyrrolidin-2-on-1-yl, methylsulfonyl, N,N-dimethylaminosulfonyl, phenyl optionally substituted with one or two substituents selected from the group consisting of hydroxymethyl, methoxy, fluoro, and methylsulfonyl, 1,3-dioxolan-2-yl, 1,3-dithiolan-2-yl, 1,3-oxathiolan-2-yl, 1,3-dioxan-2-yl, 1,3-dithian-2-yl, pyridinyl, thiazolyl, oxazolyl, or 1,2,4-oxadiazolyl optionally substituted with methyl;

R<sup>12</sup> is hydrogen or fluoro;

R<sup>13</sup> is ethynyl or cyclopropyl;

R<sup>14</sup> is hydrogen or methyl;

R<sup>15</sup> is difluoromethyl or methanesulfonyl;

R<sup>16</sup> is C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>3</sub>-C<sub>6</sub> cycloalkyl, phenyl, or -NR<sup>25</sup>R<sup>26</sup>;

R<sup>17</sup> is hydrogen, C<sub>1</sub>-C<sub>3</sub> alkyl optionally substituted with up to 3 fluorine atoms, or C<sub>3</sub>-C<sub>6</sub> cycloalkyl;

R<sup>18</sup> is C<sub>1</sub>-C<sub>3</sub> alkyl or C<sub>3</sub>-C<sub>6</sub> cycloalkyl;

R<sup>19</sup> is fluoro, hydroxy, or C<sub>1</sub>-C<sub>3</sub> alkoxy;

R<sup>20</sup> is hydrogen, phenyl, or furyl;

R<sup>21</sup> is C<sub>1</sub>-C<sub>3</sub> alkyl optionally substituted with one or two fluorine atoms;

R<sup>22</sup> is C<sub>1</sub>-C<sub>3</sub> alkyl, C<sub>3</sub>-C<sub>5</sub> cycloalkyl, C<sub>2</sub>-C<sub>3</sub> alkenyl, C<sub>1</sub>-C<sub>3</sub> alkoxy, NR<sup>23</sup>R<sup>24</sup>, pyrrolidin-1-yl optionally substituted with methyl or one or two fluorine atoms, piperidin-1-yl, phenyl, pyridinyl, or furyl;

R<sup>23</sup> is hydrogen or methyl;

R<sup>24</sup> is methyl, ethyl, or propyl;

R<sup>25</sup> is hydrogen or methyl;

R<sup>26</sup> is methyl; or

R<sup>25</sup> and R<sup>26</sup> taken together with the nitrogen atom to which they are attached form a pyrrolidine or piperidine ring;

R<sup>27</sup> is hydrogen or a nitrogen protecting group;

R<sup>28</sup> is hydrogen or a nitrogen protecting group;

R<sup>29</sup> is hydrogen or C<sub>1</sub>-C<sub>6</sub> alkyl;

R<sup>30</sup> is hydrogen or C<sub>1</sub>-C<sub>6</sub> alkyl;

R<sup>29</sup> and R<sup>30</sup> taken together with the nitrogen to which they are attached form a C<sub>3</sub>-C<sub>6</sub> cycloalkyl ring;

R<sup>31</sup> is hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>3</sub>-C<sub>6</sub> cycloalkyl, or phenyl optionally monosubstituted with C<sub>1</sub>-C<sub>6</sub> alkyl;

R<sup>32</sup> is hydrogen, R<sup>33</sup>, or -(CH<sub>2</sub>)<sub>0,2</sub>-OR<sup>33</sup>;

R<sup>33</sup> is C<sub>1</sub>-C<sub>10</sub> alkyl optionally substituted with 1-6 fluorine atoms, C<sub>2</sub>-C<sub>6</sub> alkenyl, C<sub>2</sub>-C<sub>6</sub> alkynyl, or -(CH<sub>2</sub>)<sub>0,3</sub>-R<sup>34</sup>;

R<sup>34</sup> is C<sub>3</sub>-C<sub>7</sub> cycloalkyl or phenyl each optionally substituted with one or two substituents independently selected from the group consisting of halo, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, hydroxy,

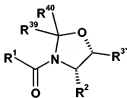
trifluoromethyl, and trifluoromethoxy, thienyl optionally substituted with halo, benzothienyl optionally substituted with halo, thiazolyl optionally substituted with C<sub>1</sub>-C<sub>4</sub> alkyl, or adamantyl;

R<sup>35</sup> is -(CH<sub>2</sub>)<sub>0-6</sub>-R<sup>34</sup>, -C(O)-(CH<sub>2</sub>)<sub>0-6</sub>-R<sup>34</sup>, -C(O)-(C<sub>1</sub>-C<sub>10</sub> alkyl), -C(O)-(C<sub>1</sub>-C<sub>4</sub> alkoxy optionally substituted with phenyl), C<sub>1</sub>-C<sub>10</sub> alkyl optionally substituted with 1-6 fluorine atoms, C<sub>2</sub>-C<sub>10</sub> alkenyl, or C<sub>2</sub>-C<sub>10</sub> alkynyl;

R<sup>36</sup> and R<sup>37</sup> are both hydrogen or, taken together with the carbon atom to which they are attached form a carbonyl group;

R<sup>38</sup> is hydrogen or an oxygen protecting group; or an acid addition salt thereof provided that: a) no more than one of X, Y, and Q may be N or N<sup>+</sup>-O<sup>-</sup>; b) when X is CH, Y is CR<sup>11</sup>, and Q is CR<sup>12</sup>, then one of R<sup>11</sup> and R<sup>12</sup> is other than hydrogen; and c) at least one of R<sup>27</sup>, R<sup>28</sup>, and R<sup>38</sup> is other than hydrogen.

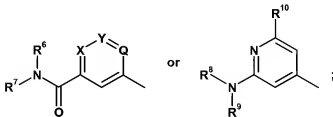
Claim 8 (original): A compound of Formula IV:



IV

where:

R<sup>1</sup> is (C<sub>3</sub>-C<sub>7</sub> cycloalkyl)<sub>0-1</sub>(C<sub>1</sub>-C<sub>6</sub> alkyl), (C<sub>3</sub>-C<sub>7</sub> cycloalkyl)<sub>0-1</sub>(C<sub>2</sub>-C<sub>6</sub> alkenyl), (C<sub>3</sub>-C<sub>7</sub> cycloalkyl)<sub>0-1</sub>(C<sub>2</sub>-C<sub>6</sub> alkynyl) or C<sub>3</sub>-C<sub>7</sub> cycloalkyl, each optionally substituted with up to three groups independently selected from halo, hydroxy, thiol, cyano, trifluoromethyl, trifluoromethoxy, C<sub>1</sub>-C<sub>7</sub> alkoxy, C<sub>3</sub>-C<sub>7</sub> cycloalkoxy, oxo, and NR<sup>4</sup>R<sup>5</sup>, biphenyl optionally



substituted with halo, hydrogen,

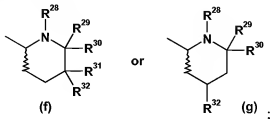
R<sup>2</sup> is C<sub>1</sub>-C<sub>3</sub> alkyl, benzyl optionally monosubstituted in the phenyl ring with a substituent selected from the group consisting of halo, C<sub>1</sub>-C<sub>6</sub> alkoxy optionally substituted in the alkyl chain with C<sub>3</sub>-C<sub>7</sub> cycloalkyl, and C<sub>1</sub>-C<sub>6</sub> alkylthio optionally substituted in the alkyl chain with C<sub>3</sub>-C<sub>7</sub> cycloalkyl, or benzyl optionally disubstituted in the phenyl ring with a first substituent



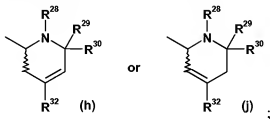
independently selected from halo and a second substituent independently selected from halo, C<sub>1</sub>-C<sub>6</sub> alkoxy optionally substituted in the alkyl chain with C<sub>3</sub>-C<sub>7</sub> cycloalkyl, and C<sub>1</sub>-C<sub>6</sub> alkylthio optionally substituted in the alkyl chain with C<sub>3</sub>-C<sub>7</sub> cycloalkyl;

R<sup>3\*</sup> is:

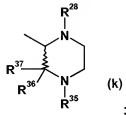
ix) a piperidin-2-yl moiety of formula:



x) a tetrahydropyridin-2-yl moiety of formula:



xii) a piperazin-2-yl moiety of formula:



xii) homopiperidin-2-yl substituted in the 1-position with variable R<sup>28</sup>;

xiii) 1,2,3,4-tetrahydroisoquinolin-3-yl substituted in the 1-position with variable R<sup>28</sup> and optionally further substituted with one or two substituents selected from halo, C<sub>1</sub>-C<sub>6</sub> alkyl, and C<sub>1</sub>-C<sub>6</sub> alkoxy;

xiv) 2-azabicyclo[2.2.2]oct-(5Z)ene-3-yl substituted in the 2-position with variable R<sup>28</sup>;

xv) 2-azabicyclo[2.2.1]hept-3-yl substituted in the 2-position with variable R<sup>28</sup> and optionally further substituted with C<sub>1</sub>-C<sub>10</sub> alkyl optionally substituted with C<sub>1</sub>-C<sub>4</sub> alkoxy; or

xvi) 2-azabicyclo[2.2.2]oct-3-yl substituted in the 2-position with variable R<sup>28</sup> and optionally further substituted with oxo, or optionally further substituted

with one or two substituents independently selected from hydroxy, fluoro, and C<sub>1</sub>-C<sub>6</sub> alkyl;

X is CH, N, or N<sup>+</sup>-O<sup>-</sup>;

Y is CR<sup>11</sup>, N, or N<sup>+</sup>-O<sup>-</sup>;

Q is CR<sup>12</sup>, N, or N<sup>+</sup>-O<sup>-</sup>;

R<sup>4</sup> is hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted up to three times with fluoro, or phenyl;

R<sup>5</sup> is hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted up to three times with fluoro, phenyl, -C(O)(C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted up to three times with fluoro), or -SO<sub>2</sub>(C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted up to three times with fluoro);

R<sup>6</sup> and R<sup>7</sup> are independently selected from the group consisting of methyl, ethyl, and propyl;

R<sup>8</sup> is hydrogen or C<sub>1</sub>-C<sub>6</sub> alkyl;

R<sup>9</sup> is C<sub>3</sub>-C<sub>5</sub> cycloalkyl, sec-butyl, or -CH<sub>2</sub>R<sup>13</sup>;

R<sup>10</sup> is -CF<sub>2</sub>R<sup>14</sup>, -OR<sup>15</sup>, -CH<sub>2</sub>C(O)CH<sub>3</sub>, -S(O)<sub>1-2</sub>R<sup>16</sup>, -NR<sup>17</sup>SO<sub>2</sub>R<sup>18</sup>, (C<sub>1</sub>-C<sub>3</sub> alkoxy)-carbonyl, 1,3-dioxolan-2-yl, 1,3-dioxan-2-yl, 1,1-dioxo-2,3,4,5-tetrahydroisothiazol-2-yl, or tetrazol-5-yl optionally substituted with C<sub>1</sub>-C<sub>3</sub> alkyl;

R<sup>11</sup> is hydrogen, chloro, isobutyl, CH<sub>2</sub>R<sup>19</sup>, CF<sub>2</sub>R<sup>20</sup>, 1,1,1-trifluoro-2-hydroxyethyl-2-yl, C<sub>2</sub>-C<sub>4</sub> alkenyl optionally substituted with one or two fluorine atoms, OR<sup>21</sup>, C(O)R<sup>22</sup>, N(methyl)(methylsulfonyl), N(methyl)(acetyl), pyrrolidin-2-on-1-yl, methylsulfonyl, N,N-dimethylaminosulfonyl, phenyl optionally substituted with one or two substituents selected from the group consisting of hydroxymethyl, methoxy, fluoro, and methylsulfonyl, 1,3-dioxolan-2-yl, 1,3-dithiolan-2-yl, 1,3-oxathiolan-2-yl, 1,3-dioxan-2-yl, 1,3-dithian-2-yl, pyridinyl, thiazolyl, oxazolyl, or 1,2,4-oxadiazolyl optionally substituted with methyl;

R<sup>12</sup> is hydrogen or fluoro;

R<sup>13</sup> is ethynyl or cyclopropyl;

R<sup>14</sup> is hydrogen or methyl;

R<sup>15</sup> is difluoromethyl or methanesulfonyl;

R<sup>16</sup> is C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>3</sub>-C<sub>6</sub> cycloalkyl, phenyl, or -NR<sup>25</sup>R<sup>26</sup>;

R<sup>17</sup> is hydrogen, C<sub>1</sub>-C<sub>3</sub> alkyl optionally substituted with up to 3 fluorine atoms, or C<sub>3</sub>-C<sub>6</sub> cycloalkyl;

R<sup>18</sup> is C<sub>1</sub>-C<sub>3</sub> alkyl or C<sub>3</sub>-C<sub>6</sub> cycloalkyl;

R<sup>19</sup> is fluoro, hydroxy, or C<sub>1</sub>-C<sub>3</sub> alkoxy;

R<sup>20</sup> is hydrogen, phenyl, or furyl;

$R^{21}$  is  $C_1$ - $C_3$  alkyl optionally substituted with one or two fluorine atoms;

$R^{22}$  is  $C_1$ - $C_3$  alkyl,  $C_3$ - $C_5$  cycloalkyl,  $C_2$ - $C_3$  alkenyl,  $C_1$ - $C_3$  alkoxy,  $NR^{23}R^{24}$ , pyrrolidin-1-yl optionally substituted with methyl or one or two fluorine atoms, piperidin-1-yl, phenyl, pyridinyl, or furyl;

$R^{23}$  is hydrogen or methyl;

$R^{24}$  is methyl, ethyl, or propyl;

$R^{25}$  is hydrogen or methyl;

$R^{26}$  is methyl; or

$R^{25}$  and  $R^{26}$  taken together with the nitrogen atom to which they are attached form a pyrrolidine or piperidine ring;

$R^{28}$  is hydrogen or a nitrogen protecting group;

$R^{29}$  is hydrogen or  $C_1$ - $C_6$  alkyl;

$R^{30}$  is hydrogen or  $C_1$ - $C_6$  alkyl;

$R^{29}$  and  $R^{30}$  taken together with the nitrogen to which they are attached form a  $C_3$ - $C_6$  cycloalkyl ring;

$R^{31}$  is hydrogen,  $C_1$ - $C_6$  alkyl,  $C_3$ - $C_6$  cycloalkyl, or phenyl optionally monosubstituted with  $C_1$ - $C_6$  alkyl;

$R^{32}$  is hydrogen,  $R^{33}$ , or  $-(CH_2)_{0-2}-OR^{33}$ ;

$R^{33}$  is  $C_1$ - $C_{10}$  alkyl optionally substituted with 1-6 fluorine atoms,  $C_2$ - $C_6$  alkenyl,  $C_2$ - $C_6$  alkynyl, or  $-(CH_2)_{0-3}-R^{34}$ ;

$R^{34}$  is  $C_3$ - $C_7$  cycloalkyl or phenyl each optionally substituted with one or two substituents independently selected from the group consisting of halo,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_6$  alkoxy, hydroxy, trifluoromethyl, and trifluoromethoxy, thienyl optionally substituted with halo, benzothienyl optionally substituted with halo, thiazolyl optionally substituted with  $C_1$ - $C_4$  alkyl, or adamantyl;

$R^{35}$  is  $-(CH_2)_{0-6}-R^{34}$ ,  $-C(O)-(CH_2)_{0-6}-R^{34}$ ,  $-C(O)-(C_1-C_{10} \text{ alkyl})$ ,  $-C(O)-(C_1-C_4 \text{ alkoxy optionally substituted with phenyl})$ ,  $C_1$ - $C_{10}$  alkyl optionally substituted with 1-6 fluorine atoms,  $C_2$ - $C_{10}$  alkenyl, or  $C_2$ - $C_{10}$  alkynyl;

$R^{36}$  and  $R^{37}$  are both hydrogen or, taken together with the carbon atom to which they are attached form a carbonyl group;

$R^{38}$  is hydrogen or an oxygen protecting group;

$R^{39}$  and  $R^{40}$  are independently selected from methyl, ethyl, or propyl; or an acid addition salt thereof provided that no more than one of X, Y, and Q may be N or N'-O'.

Claim 9 (Previously presented): A method for the inhibition of production of A- $\beta$  peptide comprising administering to a mammal in need of such treatment an effective amount of a compound of Claim 1.

Claim 10 (Cancelled)